



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/798,133

03/10/2004

Seiichi Onoue

61654US004

4938

32692

7590

05/16/2006

3M INNOVATIVE PROPERTIES COMPANY
PO BOX 33427
ST. PAUL, MN 55133-3427

EXAMINER

KURTZ, BENJAMIN M

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,133

Applicant(s)

ONOUÉ ET AL.

Examiner

Benjamin Kurtz

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).
2. The use of the trademark "Cartridge Klean" on page 8, paragraph [0041] has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 26-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 26 and 28 recite the limitation "the lever" and "the piston". There is insufficient antecedent basis for this limitation in the claim. Claim 27 recites the limitation "the piston". There is insufficient antecedent basis for this limitation in the claim. For examination purposes claims 26-28 are regarded as dependent on claim 25.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10, and 15-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Reed et al. U.S. Patent No. 4,839,048.

Regarding claim 1, Reed (048) discloses a filter housing system comprising: a filter-housing sump (110, 205) having a central cavity and an axial opening, the central cavity being configured and dimensioned for receiving and seating a filter media pack (201) therein; a filter housing head assembly (230) configured and dimensioned to fit on the filter housing sump (110, 205) such that axial opening is covered thereby; a clamping device (233) comprising: at least two curved members (235,236) each curved member having two ends; at least one hinge assembly (240,241), the curved members (235,236) being operatively pivotally attached to each other at one end by the hinge assembly (240,241); at least two tongue members (fig. 5) operatively positioned at the second end of the curved members (235,236); and at least one fastening device (242, 243) being operative to force the two tongue members together such that an operator can generate sufficient torque to effectuate the seal there between (fig. 5 and 6).

Regarding claims 2 and 3, a radial body flange rim (225) surrounds the housing sump adjacent to the opening and has a substantially planar surface portion defined along its periphery (fig. 6); and the filter housing head assembly (230) further

Art Unit: 1723

comprises: a radial flange rim of the housing sump when filter head assembly is operatively positioned on the housing sump (110, 205), the radial flange rim having a substantially planar surface portion define along its periphery for operatively contacting the planar surface portion (225) of the radial body flange rim when the filter head assembly is operatively connected onto the housing sump (110, 205) (fig. 6).

Regarding claims 4 and 7-10, the at least two tongues further comprise: means for receiving male (242) and female (243) fasteners which perform the identical function as the slots and bores disclosed herein in substantially the same way with substantially the same results that the clamping device is held in place to secure the sump to the head (fig. 5); the male fastener (242) comprises: a threaded eye bolt having a threaded portion of sufficient length and a round flat head with a smaller diameter than a bore in the two tongues (fig. 5, col. 6, lines 6-19); the female fastener (243) further comprises: a threaded bore and a knob having at least two protrusions which is sufficient to generate enough torque to operate the knob (fig. 5, col. 6, lines 6-19).

Regarding claim 5, the two curved members (235,236) are configured and dimensioned to engage both the radial body flange rim and the radial flange rim when a filter media pack is installed therein and the filter head is operatively positioned on the filter housing sump such that the compression load is distributed evenly around the entire outer periphery of the radial body flange rim and the radial flange rim when the clamping device is operatively engaged (fig. 5, col. 3, lines 14-26).

Regarding claim 6, the two curved members are shaped to correspond with the profile created by the radial body flange rim and the radial flange rim (fig. 5).

Regarding claim 15, Reed (048) discloses a filter housing system comprising: a filter-housing sump (110, 205) having a central cavity and an axial opening, the central cavity being configured and dimensioned for receiving and seating a filter media pack (201) therein; a filter housing head assembly (230) configured and dimensioned to fit on the filter housing sump (110, 205) such that axial opening is covered thereby; a clamping device (233) comprising: at least two curved members (235,236) each curved member having two ends; at least one hinge assembly (240,241), the curved members (235,236) being operatively pivotally attached to each other at one end by the hinge assembly (240,241); at least two tongue members (fig. 5) operatively positioned at the second end of the curved members (235,236); and at least one fastening device (242, 243) being operative to force the two tongue members together such that an operator can generate sufficient torque to effectuate the seal there between (fig. 5 and 6).

Regarding claims 16 and 17, a radial body flange rim (225) surrounds the housing sump adjacent to the opening and has a substantially planar surface portion defined along its periphery (fig. 6); and the filter housing head assembly (230) further comprises: a radial flange rim of the housing sump when filter head assembly is operatively positioned on the housing sump (110, 205), the radial flange rim having a substantially planar surface portion defined along its periphery for operatively contacting the planar surface portion (225) of the radial body flange rim when the filter head assembly is operatively connected onto the housing sump (110, 205) (fig. 6).

Regarding claims 18 and 21-24, the at least two tongues further comprise: means for receiving male (242) and female (243) fasteners which perform the identical

Art Unit: 1723

function as the slots and bores disclosed herein in substantially the same way with substantially the same results that the clamping device is held in place to secure the sump to the head (fig. 5); the male fastener (242) comprises: a threaded eye bolt having a threaded portion of sufficient length and a round flat head with a smaller diameter than a bore in the two tongues (fig. 5, col. 6, lines 6-19); the female fastener (243) further comprises: a threaded bore and a knob having at least two protrusions which is sufficient to generate enough torque to operate the knob (fig. 5, col. 6, lines 6-19).

Regarding claim 19, the two curved members (235,236) are configured and dimensioned to engage both the radial body flange rim and the radial flange rim when a filter media pack is installed therein and the filter head is operatively positioned on the filter housing sump such that the compression load is distributed evenly around the entire outer periphery of the radial body flange rim and the radial flange rim when the clamping device is operatively engaged (fig. 5, col. 3, lines 14-26).

Regarding claim 20, the two curved members are shaped to correspond with the profile created by the radial body flange rim and the radial flange rim (fig. 5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1723

5. Claims 11-12, 14, 25-26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reed (048) in view of Knuth U.S. Patent No. 3,399,776. Reed (048) discloses the filter housing system but does not disclose the head having a lever and piston assembly. Knuth (776) teaches a filter assembly with a head having a lever (41) and piston (40) assembly for applying pressure to the filter media pack (20), the lever (41) is pivotally mounted on the filter head and operatively associated with the piston (40) and the lever and piston assembly is configured to cooperate so that the force is translated to the piston by the lever at a location closer to the pivotal mounting of the lever than its opposing free end (fig. 1-5, col. 2, lines 26-59). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the lever and piston assembly of Knuth (776) because the assembly provides a mechanism for releasing the filter unit from the head unit and to close the valve of the head unit (col. 2, lines 37-59).

6. Claims 13 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reed (048) in view of Knuth (776) as applied to claims 11 and 25 above, and further in view of Reid et al. U.S. Patent No. 5,744,030. Reed (048) in view of Knuth (776) teaches the filter housing system with a lever and piston assembly but does not teach the piston slidable. Reid (030) teaches a filter assembly with a lever (114) and piston (112) assembly wherein the piston (112) is mounted for slidable movement extending from the exterior of the filter head to the interior of the filter housing to contact the filter media (fig. 3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the lever and piston assembly with that of

Art Unit: 1723

Reid (030) because the piston (112) prevents an accidental counter-rotation of the filter cartridge (col. 7, lines 34-35).


Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin Kurtz whose telephone number is 571-272-8211. The examiner can normally be reached on Monday through Friday 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bk 5/9/06


W. L. WALKER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700